WHAT IS CLAIMED

1. A method for measuring linear spot velocity or position variations in a scanning system comprising:

a) providing at least two radiation detectors that can move in tandem across a scan line, the two radiation detectors being spaced apart by a distance **d**;

b) positioning the at least two radiation detectors at a first point on the scan line;

c) scanning the at least two radiation detectors with scanning radiation and recording the position of the two detectors along the scan line and the time taken for the scanning radiation to scan from a first of the at least two radiation detectors to a second of the at least two radiation detectors while the at least two radiation detectors are positioned at the first point;

d) moving the at least two radiation detectors to a second point on the scan line maintaining the distance **d** between the at least two radiation detectors; and

e) again scanning the at least two radiation detectors with scanning radiation and recording the position of the two detectors along the scan line and the time taken for the scanning radiation to scan from a first of the at least two radiation detectors to a second of the at least two radiation detectors while the at least two radiation detectors are positioned at the second point.

2. The method of claim 1 wherein steps d) and e) are repeated across the scan line.

3. The method of claim 1 wherein an electronic look-up table is provided identifying spot velocity error as a function of spot position along the scan line.

4. The method of claim 2 wherein an electronic look-up table is provided identifying spot velocity error as a function of spot position along the scan line.

5. The method of claim 4 wherein a trend line is determined for data to be put into an electronic look-up table to identify data errors from sources other than lens aberrations.

6. The method of claim 5 wherein the trend line is used to correct data before the data is placed into the look-up table.

7. The method of claim 2 wherein the at least two detectors comprise two split detectors that are moved while supported on a rigid platform.

8. The method of claim 2 wherein the distance between the first point and the second point is approximately **d**.

9. The method of claim 2 wherein recorded information is used to determine a perspective of spot placement error along the scan line for a particular lens used in the scanning system.

10. The method of claim 4 wherein recorded information is used to determine a perspective of spot placement error along the scan line for a particular lens used in the scanning system.

11. The method of claim 2 wherein recorded information for one lens is compared with recorded information for at least one other lens.

12. The method of claim 4 wherein recorded information for one lens is compared with recorded information for at least one other lens.

13. The method of claim 11 wherein lenses that are compared are selected or rejected for combination into a multi-color tandem scanning imaging system based on similarity of optical performance.

14. The method of claim 12 wherein lenses that are compared are selected or rejected for combination into a multi-color tandem scanning imaging system based on similarity of optical performance.

15. An apparatus for the measurement of linear pixel displacement error in a scanning system comprising:

a scanning source that provides scan radiation along a scan line;

at least two radiation detectors that can move in tandem across a scan line, the two radiation detectors being spaced apart by a distance **d**; and

a processor that collects detection data from the at least two radiation detectors.

16. The apparatus of claim 15 wherein the at least two radiation detectors comprise two split detectors.

17. The apparatus of claim 15 wherein the processor contains a program that can modify the detection data for spot positioning defects in the data that are contributed by effects other than lens aberration.

18. The apparatus of claim 16 wherein scan radiation is passed through a lens before it reaches a focal plane for the scan line.

19. The apparatus of claim 15 wherein scan radiation is passed through a lens before it reaches a focal plane for the scan line.

20. The apparatus of claim 17 wherein scan radiation is passed through a lens before it reaches a focal plane for the scan line.